

structure of the luer lock portion. Applicant has amended claim 1 to recite the purpose of the plastic syringe barrel and nozzle portion and to more clearly define the structure of those elements. Applicant also has amended claim 1 to clarify that the luer lock portion is formed by an inner peripheral surface of the outer cylinder and an outer peripheral surface of the inner surface of the nozzle portion and comprises a cylindrical space.

The Examiner further objected to claim 1 as including a process limitation – "wherein all or part of an inner surface of said luer lock portion is subjected to surface roughening treatment." Applicant has amended claim 1 to recite that the claimed luer lock portion "has a roughened surface." Applicant has made the same amendment to claims 2 and 3.

The Examiner objected to the phrase "is formed" in claim 3 as indefinite and stated that the screw thread structure of claim 3 must be positively recited. Applicant has amended claim 3 to require that the inner peripheral surface of the outer cylinder "contains" a helically continuous screw thread. The Examiner further objected to claim 3 as indefinite as to the structure of the "screw root portion." Applicant has amended claim 3 to reflect that the screw root portion is the structure in the inner peripheral surface of the outer cylinder that "is formed between adjacent ridges of the screw thread." (See Fig. 2, item 8; p. 5, lines 19-22).

The Examiner further objected to the use of "and/or" in claim 3 as indefinite. Applicant has replaced "and/or" in claim 3 with the word "or."

The Examiner objected to claim 5 as reciting a process limitation and as not reciting structure. Applicant has amended claim 5 to recite that the roughened surface is blast treated.

No new matter has been added by the proposed amendments to the claims.

Claim Rejections – 35 U.S.C. §102

The Examiner rejected claim 1 under 102(b) as being anticipated by U.S. Patent No. 4,927,417 (Moncada). Moncada, however, does not teach a plastic syringe barrel with a luer lock portion that has a roughened inner surface, as required by claim 1.

Moncada teaches an adapter that can be attached to a syringe or needle fitting to engage a needle sleeve or guard. Moncada's adapter can be equipped with a male luer lock portion to enable attachment to the female luer lock portion of the syringe or needle fitting (col. 4, lines 4-8). Moncada, however, does not teach a roughened surface on the syringe or needle fitting. Rather, the teeth or roughening to which the Examiner refers (col. 4, lines 42-60 and Figs. 1 and 2) are on the ears 34 of the male luer lock portion of the adapter.

The Examiner states that Moncada's "male Luer lock connector portion 24 with cylindrical portion 30" (see Fig. 1; col. 4, lines 2-4) "corresponds with the inner cylinder of claim 1," but those portions of Moncada are located on the adapter. The inner cylinder of pending claim 1 is located on the syringe. The Examiner does not cite to anything in Moncada that teaches a syringe barrel with luer lock portion in which the inner surface of the luer lock portion has a roughened surface. Accordingly, applicants respectfully request withdrawal of the Section 102(b) rejection.

Claim Rejections – 35 U.S.C. § 103

The Examiner rejected claims 2 and 3 under 35 U.S.C. 103(a) as being unpatentable over Moncada, rejected claim 4 under 35 U.S.C. 103(a) as being unpatentable over Moncada in view of Porfano and rejected claim 5 under 35 U.S.C. 103(a) as being unpatentable over Moncada in view of Lampkin. Applicant respectfully submits that dependent claims 2-5 (as well as independent claim 1) are patentable over the prior art of record because it would not have been obvious to a person of ordinary skill in the art to employ a roughened inner surface on the luer lock portion of a syringe.

Moncada does not teach a roughened inner surface on the luer lock portion of a syringe, as noted above and as the Examiner acknowledged in rejecting claim 2 ("Moncada et al. fail to explicitly teach that the inner peripheral surface of the outer cylinder is subjected to roughening treatment," Office Action at p. 5). To the contrary, Moncada states that an object of the invention is to "enable needle sleeves and guards to be used on unmodified syringes and needle fittings" (col. 2, lines 3-5) (emphasis supplied). As Moncada explains:

A distinct disadvantage with the known needle protecting devices is that modification of the syringe barrel with some type of engaging means to hold the needle guard or sleeve in the needle protecting position is required. This prevents the known safety devices from being used with readily available unmodified syringes including those currently in stock at health care facilities.

(Col. 1, lines 61-68) (emphasis supplied). If anything, Moncada teaches away from roughening the inner surface of a luer lock portion of a syringe, teaching instead the advantages of an adapter that can be used with unmodified syringes (e.g., syringes that lack roughening on their luer lock portions).

Moncada even describes female luer lock portions, both in the syringe (col. 45, lines 64-68 ("female Luer lock portion 92"); Fig. 5) and in the adapter (col. 4, lines 9-12 ("female Luer lock portion 26"); col. 6, lines 7-13 ("female Luer lock portion 118"); Figs. 1 and 5), but never suggests that those portions should have roughened surfaces. Rather, Moncada shows those portions without any roughening. (See Figs. 1 and 5). This is further evidence of nonobviousness.

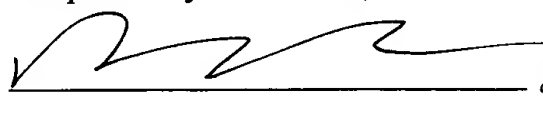
The Examiner neither relies on nor cites anything in either Porfano or Lampkin that teaches or suggests a roughened surface on the luer lock portion of a syringe.

Accordingly, applicant respectfully submits that it would not have been obvious to persons of ordinary skill in the art to employ a plastic syringe barrel with a luer lock portion that has a roughened inner surface, as required by claims 1-5.

Conclusion

Applicant believes that the application is now in condition for allowance and such action is respectfully requested. If the Examiner believes that a discussion with applicants' attorney would advance the prosecution of this application, or if the Examiner's action is other than allowance, the Examiner is invited to contact the undersigned at the number given below.

Respectfully submitted,

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